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FAD TRAINING IN ASIA-PACIFIC REGION, 1982-84

An evaluation Study

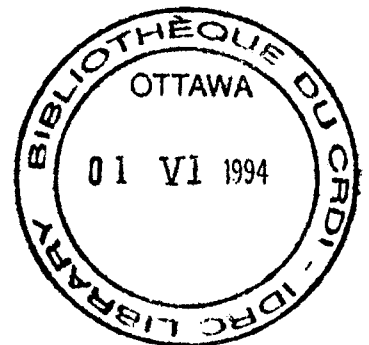
by

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FAD Training in Asia-Pacific Region, 1982-84

An Evaluation Report

BACKGROUND

The FAD program for Asia and Pacific region was formally set up in September, 1982. Soon after this, a systematic review was done of FAD (Fellowships Programme) activities in the region. The study concluded that the Programme's activities were mainly in the form of individual awards. Furthermore, during the 6-year period under review, the awards (127 total) were widely scattered in 14 countries and in 97 institutions. Consequently, a new framework was developed in consultation with the divisional program officers in the region. The plan, called Trainor-Trainee Scheme, became the cornerstone of FAD in Asia and Pacific region starting in 1982.

TRAINOR-TRAINEE SCHEME

The term "Trainor" refers to institutions in the region which offer post-graduate degree or short-term courses related to research. These institutions accept students or trainees from countries within the region. "Trainee" institutions are important research centers which are sources of trainees.

The general objective of the Scheme is to encourage the development of institutional capability in training and/or research. More specifically, the Trainor-Trainee Scheme aims to:

- support training related to defined program areas of IDRC divisions (supportive role).
- fund training of scientists in or from selected institutions whose research interests are closely related to IDRC divisions' interest (selective mechanism).

To accomplish these objectives, FAD has categorized its support into group training, program related awards, project related awards, and institutional support. Group training projects are mostly short-term courses in specified topics. The projects may be a one time offering or longer term (e.g., two to three years) depending on the need.

Program related awards (PRA) are individual awards to pursue masteral or doctoral degrees; short-term courses; or practical attachments. The courses must be related to IDRC program interest and priority. Like the PRA, project related awards (pre or post project) are individual grants to scientists who will be directly involved in an upcoming project (pre project), or who has been in the research team of a centre-supported project (post project).

Institutional support may cover several components: grants to cover expenses of trainees to study in a trainor/recipient institution; contribution for development of staff of a trainor/recipient institution; and modest funds for light equipment to be used in the training program.

Purpose and Methodology

The purpose of this review is to assess the progress and performance of the Trainor-Trainee Scheme based on its objectives. A framework for evaluation was designed (Appendix B). Data gathering activities consisted of file search; mailed questionnaires to FAD awardees and in-project trainees/recipients; and follow-up interviews. The conclusion of in-project training in this study was aimed at looking into the issue of complementation or duplication between FAD-supported training and divisional in-project-supported training.

DATA FROM FILE SEARCHFAD Support to Divisions/Sub-Division

This support consisted of Program Related Awards (PRA), Project-Related Awards (Pre/Post), short-term group training projects, and institutional support to important trainor institutions.

Table I in Appendix B shows the budget spread of FAD funds by division and sub-division covering the 1982-84 period. The most prominent feature of the budget figures is the large share (34%) received by AFNS-Fisheries of FAD funds compared with what went to other sub-divisions. This is justifiable, considering the fact that national governments and donor agencies give lower priority to fisheries (especially aquaculture) than to other sectors of agriculture (e.g., crops), despite the importance of fish in diet of Asians. In fact, the IDRC Board of Governors suggested at one time that more training funds go fisheries. Moreover, a review of AFNS project budgets from 1980-84 showed that Fisheries' budget for in-project training is one-third (see Table X) of the amount for Crops and Animal Production System (CAPS).

Except for the large support to fisheries, the distribution of figures by divisions and sub-divisions appear to be reasonable in terms of the programs' size and priorities (e.g., research vs. training support).

Another significant aspect of FAD's training support to the divisional programs is the match between FAD's individual awards (PRA and Pre/Post) and divisional interest (e.g., research project support) in recipient institutions. Table II reveals that FAD support matches well with AFNS and HSD interests. It appears that "good match" is related to the divisions' stable commitment or interest in certain institutions. FAD's Trainor-Trainee Scheme works better with divisions having stable, longer term interest and relationship with certain institutions. A "good match" enhances FAD's objective to "strengthen" research capability. However, it is also important to recognize the usefulness of "stimulating research capability" in important non-IDRC supported institutions to facilitate future relationships. Institutions in China illustrate this "research stimulation" objective. A list of institutions which received FAD individual awards is in Table III.

Trainor Institutions

During the period under review (1982-84), FAD has supported 13 trainor institutions in seven countries of the Asia-Pacific region (Table IV). Trainor institutions provide degree and/or short-term courses. The courses are for scientists in the region who go as a group for training on specific topics. As the data in Table IV show, the regional program offered by these institutions are closely tied to IDRC program interests. Nine of the courses offered by trainor institutions related to AFNS program areas; four were within SSD's priorities; and one each within HSD, Cooperation Program, and Communications Division.

As to the quality of these group training courses, the assessment (Table V) ranged from "very useful" to "useful" (118 questionnaires yielded 78 or 66% returns). Only three percent (3%) of the respondents replied "not useful" (SEAMEO-INNOTECH course). The positive responses were reinforced further by the fact that eighty-three percent (83%) of the awardees were engaged, soon after their training, in research or a combination of research and teaching/training. The rest of the respondents got into teaching and/or administration. A similar trend is noted (Table VI) from responses (14 returns out of 28 questionnaires) of FAD-supported individual trainees (PRA, Pre/Post).

Cost of Training in Trainor Institutions

Institutions receiving FAD funds for regional courses are either national or international. The full cost of degree training (masteral) vary significantly depending upon whether the recipient institution is national or international. International institutions charge much higher rates than national. For example, Table VII shows that cost of routing FAD funds to institutions like IRRI, ICLARM and SEARCA can be from 3 to 9 times more per trainee per year than giving the grant directly to national institutions like UPM, VISCA, and Roorkee. As the same table indicates, the irony in several instances is that the graduate students are actually trained not by the recipient of IDRC funds but by another institution (e.g., UPLB).

As to FAD-funded short-term (group) training, cost is affected by both the length of the course and institutional country location (Table VIII). The longer the duration of the course, the cheaper the cost per trainee per day. The figures in Table VIII reveal that a course that is less than 30 days duration is likely to be more expensive than one which is a month or more.

Trainee Institutions

In the earlier review of FAD (Fellowship Programme) activities in Asia during the six-year period, 1976-82, it was found that the individual awards were thinly spread.

In the current review covering about two and a half years (1982-84), institutional spread of FAD individual awards still appears to be thin: a total of 60 institutions received the 79 awards (Table III). However, the data show greater concentration of awards in some institutions during the recent two and a half years than in the previous six years. For example, in the 1982-84 period, there were 16 (27%) out of 60 institutions receiving two or more awards, while in the 1976-82 period, there were only 12 (12%) out of 97 institutions which received 2 or more awards. Twenty institutions in the 1976-82 list continued to be recipients of awards in the more recent period. The spread also appears to be affected by the longer term interest or relationship between a division/subdivision and the institution.

Another important factor in FAD's individual awards' program in "trainee" institutions is group training. Many participants in FAD-supported group training projects come from "trainee" institutions which benefited from PRA or Project-Related awards. Of the 60 institutions in the PRA and Project Related list, 16 (27%) were sources of participants in FAD-supported group training projects.

IN-PROJECT TRAINING

As mentioned earlier, this study includes the training components of research projects (called in-project training) funded by IDRC divisions. The purpose of the inclusion is to look into the issue of complementation or duplication between FAD-supported training and divisional support for training

In-project training covers degree (e.g., M.Sc, Ph.D) and non-degree (e.g., workshop, seminar/conference, study tour, research attachment, technical project meeting, field visit, technical course).

Projects with Training Components

Of the 229 projects (1980-84) reviewed, 126 (55%) had training components (based on the examples of training in the preceding paragraph). The averages by division range from 45 to 61 percent (Table IX of the number of projects with training components).

In terms of funds allocated to training, Table X shows that among the three major divisions (AFNS, SSD, HSD), AFNS gave the strongest emphasis on training by committing substantial funds (18.22%) for training in project budgets, while SSD and HSD assigned only about 10% of their project budgets for the same purpose.

Types of In-Project Training

Table XI presents the types of degree and non-degree training tucked into the research projects. There were a total 42 masteral and doctoral degree candidates supported during the 1980-84 period and ninety-five percent (95%) of these were under AFNS. In monetary terms, the total cost of these degree training came to CAD 1,040,200 (Table XII). The distribution of training location between local/regional vs. developed country is 50-50 but the cost of training is roughly 3 times higher in developed countries. Given that a substantial part of FAD funds also go for degree training support, it is legitimate to raise the duplication/supplementation issue.

Within the non-degree category, the most popular types were workshops, technical courses, seminars/conferences, research attachment, and study tours (Table XI). Compared with FAD's emphasis on formal short-term group training, most in-project non-degree training activities did not duplicate FAD's. Instead, it can be said that the FAD-supported non-degree activities complement or supplement those of the divisions.

Post Training Activities of In-Project Trainees

A follow up by mailed questionnaire (total of 44 questionnaires) was made of Centre-administered individual in-project trainees (degree and non-degree). The returns (21 or 48%) revealed that only forty-seven (47%) of the respondents were involved full-time or part-time research after they completed training (Table XIII). The rest were engaged either in teaching/training or administration. This trend is further supported by the data from review of project files containing in-project training for degrees. Table XIV shows that in forty-five (45%) of the cases, the durations of the degree training were longer than the durations of the projects to which the trainees were related. Those whose degree training durations were shorter than the projects' life span went back to their institutions only towards the tail end of the projects.

Participation in the project therefore might be regarded as minimal unless continuity was provided through another phase. The majority of in-project degree training may therefore be considered to fulfill a general "institutional capability development" objective rather than "participation or application of training in the project". If there is no research project to which the trainees apply their training after their completion, the tendency will be to go into teaching/training or/and administrative jobs.

FEEDBACK RELATED TO MECHANISMS

Whereas the preceding section dealt mostly with data from file search, this section looks at the feedback from mailed questionnaires and follow up interviews of awardees and recipients by a consultant (Dr Conrado Aquino). Dr Aquino's interviews concentrated on training mechanisms employed by IDRC. His report is attached (Appendix C). For the purpose of this report, the various types of training programs (e.g., short-term, degree) are treated as mechanisms together with FAD's guidelines and strategies.

Most of the feedback from mailed questionnaires and follow up interviews are not new information to FAD. Nevertheless, this systematically gathered information reinforces informally required feedback and allows greater confidence in drawing conclusions and implications.

Short-Term Training

This refers to formal short courses (one to three months duration), in-project workshops, and practical attachments. These types of training are done via group courses/meetings or individual awards.

Aquino's interviews (pp. 2-4 of his report) found that short-term training exercises are generally regarded as useful. They are a quick and effective way of redressing deficiencies in research capability. However, to be effective, the course (e.g., curriculum) must be well-designed and well-organized. Courses combining theoretical knowledge and practical application are preferred. Additionally, for group training courses, they must meet a specific need and should seek participants with common backgrounds, experience, and qualifications. Courses intended to address a regional problem should cover topics common to countries of the participants instead of conditions and experience of the host country.

The problems related to course quality can be effectively handled if there is continuity or long term commitment in the training program. A one time course offering provides little or no opportunity for systematic evaluation and improvement.

Degree Programs (Masteral and Doctoral)

The interviewees (p.4 of the Aquino report) want to see not only continued emphasis but also an expansion of the number of scholarships for degree programs in order to hasten research capability development. Moreover, it is argued that degree training will sustain future research and training in developing countries even after outside donors pull out.

Continued and expanded support for degree training is generally recognized and accepted. The issue is limited funds and priority: degree vs. short-term training; masteral vs. doctoral.

Attempt has been made to be "selective" of the institutions receiving support for training. Despite this, the record since 1982 indicated that only 53 percent of FAD's individual grants matched with the divisions' (AFNS, SSD, ISD, HSD) interest in recipient institutions. A higher percentage is desirable, without neglecting the objective of "stimulating" of research capability in potentially promising institutions where IDRC divisions may wish to establish project relationship in the future.

Integrated Approach

Aquino's report (pp. 4-5; 9-10) on the need for an integrated approach to research has implication to FAD's training strategy. The integration examples cited by some of the interviewees were: wider, in-depth investigation of a complex problem or phenomenon; research in one discipline having implications on other disciplines (e.g., aquatic resources on environmental planning; handicraft on culture, ethnicity and economics).

For FAD, the suggestion poses a new challenge to encourage training proposals exemplifying integrated, multi-disciplinary content and methodology. This is possible only if a division or several divisions encourage support for an integrated, multi-disciplinary research project.

A similar thought was expressed by several members of the IDRC Board of Governors during the 17-19 October 1984 meeting. Given the organizational structure of IDRC, an integrated transdisciplinary research would be difficult unless upper level management encourages it as an explicit approach or style. Perhaps experimental projects can be encouraged by a multi divisional group within the Centre.

Another possibility is to try out the approach in "small grants projects" under one division, e.g., FAD. "Small grants projects" have both training and research components.

Networking

Aquino's report (pp. 8-10) supports the value of networking. It is a mechanism which IDRC has practised widely. FAD has taken advantage of networks developed by divisions. As part of the Trainor-Trainee Scheme, FAD has linked "trainee" with "trainor" institutions. For example, FAD-supported trainees going to courses in SEAFDEC-AQD, in Integrated Fish Farming at Wuxi, and in UPM fisheries economics are drawn mostly from institutions where IDRC divisions have active projects.

Trainor-Trainor cooperation has also been initiated. With FAD support, UPM offers short course in fisheries economics for aquaculturists (some of them from SEAFDEC-AQD) and SEAFDEC-AQD offers short-term aquaculture course for economists, including UPM's M.Sc fisheries economics students.

Demand Response vs. Supply Initiative

FAD defines "demanded response" as a mechanism or style of responding to unsolicited requests or proposals. This has been the most frequent mode of giving out awards or funding training projects.

"Supply initiative" refers to ideas/activities initiated primarily by FAD in consultation with divisional officers and recipient/contacts. The "supply" of ideas usually comes as a result of evaluation study and/or discussions during meetings with program officers and other professionals. As a mechanism, "supply initiative" has been used in few cases.

The bias in favor of "demand response" was reaffirmed in the interviews (pp. 10-11). Nevertheless, the value of "supply initiative" for innovation was also recognized (pp. 11-12). Experience shows that operating by "demand response" is much easier than "supply initiative". In the former mechanism, FAD is on the "offensive" role - asking questions, applying criteria, challenging concepts and methodology of proposals. In the latter, FAD is on the "defensive" side - "selling" the idea; providing justification. "Supply initiative" requires more time and effort, much patience on the part of FAD (e.g., the training idea on agricultural research management).

Undoubtedly, "demand response" will continue to be FAD's dominant style. It is not only consistent with the Centre's philosophy but also with FAD's supportive role. Nevertheless, "supply initiative" offers potentials for innovative ideas and should be used when there is strong evidence to justify the approach.

MISCELLANEOUS FEEDBACK ON SUBSTANTIVE ISSUES

Multiplier Effect of Training

Aside from direct application of research skills in the project, one other value of a project related award (e.g., pre-project; in-project) is its multiplier effect. As documented in Aquino's report (pp. 5-6), several project leaders shared their training skills soon after their return with members of their research teams. Potential multiplier effect should be a good criterion in considering an application for a pre-project award.

Statistics as a Component of Training

The lack of competence in statistical design and quantitative methods was brought out by some interviewees (pp. 6-7). This is especially true in non-mathematical sciences (e.g., health) and in research involving computer analysis. The problem should be foreseen during the research designing stage, and training in statistics should be provided prior to or during project implementation.

Training in Dissemination of Research Results

Under IDRC's present set-up research dissemination is the responsibility of the Communications Division. FAD has started to recognize the training needs in this area through collaborative projects with Communications Division. For example: training of writers for mass media; and editing/production of scientific journals. Training in research dissemination for other sectors or groups were suggested during Aquino's interviews (pp. 7-8), e.g., training of extension workers and mobile unit personnel in health.

Support for research, especially applied research, should cover dissemination activities, including training, in order for research results to reach the intended beneficiaries - the people.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

This review covers FAD's activities and performance in the Asia-Pacific region from 1982-84. The study focuses on the activities and performance under FAD's Trainor-Trainee Scheme, the cornerstone of the Division's program in the region. The Scheme is described in the main body of this report. Also included in the review are the training component (called in-project training) of research projects (1980-84) funded by various divisions of IDRC. Data on in-project training were gathered to see what complementation supplementation/duplication exist between FAD's training support and that provided by the divisions.

The following is a summary of the findings and recommendations of the study. Greater details are provided in the main body of the report.

A. FAD Support to Divisions/Sub-divisions

Findings:

1. AFNS-Fisheries received the largest share (34%) of FAD funds.
2. There was a "good match" between FAD's individual awards (PRA, Pre/Post) and AFNS and HSD interests. "Good match" seems to be related to longer term interest of divisions in certain institutions.

Recommendations:

1. Support to AFNS-Fisheries may continue, as justified by its importance and the low priority given to sectoral governments and donors. However, care should be taken not to neglect the legitimate needs of other divisions/sub-divisions.

2. To utilize more effectively the limited financial resources of FAD, divisions should be encouraged to maintain longer term interest in certain institutions in order to achieve greater and quicker impact in the development of research and training capability.

B. Trainer Institutions

Findings:

1. Thirteen institutions in seven countries have been encourage and supported to offer regional degree and/or short-term group training courses. These courses related directly to research interests of AFNS, SSD, HSD and Coop.
2. The cost of giving FAD funds for master's degree training directly to national institutions (e.g., UPM, VISCA, Roorkee) was 3 to 9 times cheaper than via intermediary international institutions like IRRI, ICLARM, and SEARCA.
3. Formal short-term group training courses are more cost-effective per trainee per day if the duration is at least one month.

Recommendations:

1. More qualified institutions should be encouraged to offer regional training courses in other specialized fields. Other donors should be invited to participate in these regional training programs.
2. FAD should adopt as its policy to give its support directly to national institutions offering regional training programs. It is not only economical for FAD but also a good exercise in developing institutional administrative capability.
3. FAD group training support should go for courses which are of one month or more in duration.

C. Trainee Institution**Finding:**

1. Institutional spread of FAD individual awards continued to be thin: 79 awards went to 60-institutions.

Recommendation:

1. To achieve a more concentrated spread, FAD should do a more thorough study of the research resources and programs of institutions receiving FAD awards and divisional research funds.

D In-Project Training**Findings:**

1. Between 45 to 61 percent of divisional research projects included training support. Between 10 to 18 percent of project funds went into training.

2. AFNS supported 95 percent of all the degree training (M.Sc, Ph.D) recorded during the period covered by the study. Half of the degree trainees were sent to developing country institutions; the other half to developed countries. The cost of degree training in developed countries was 3 times that in developing countries. Most in-project trainees who went for degree training either returned after or towards the end of the research project they were supposedly attached.
3. In-project non-degree training consisted mainly of workshops, seminars/conferences, research attachment, technical courses, and study tours. FAD non-degree support went mostly to formal short-term group training courses, thus complementing or supplementing those of the other divisions.

Recommendations:

1. Where training programme exists, FAD should keep its policy of placing higher priority for degree training in the region than in developed countries.
2. As a matter of Centre training policy, all degree training may be considered a FAD responsibility. The data show that the actual objective of such training is more to "enhance institutional capability" than to "participate or contribute skills in research projects". Moreover, CGT experience shows that closure of completed research projects are often delayed because of the degree training component. FAD can respond effectively to divisional request for degree training of the in-project type if the request is made during the pipeline stage of a research proposal.
3. Non-degree in-project training may continue as component of research projects especially the types that are different from those emphasized by FAD.

E Mechanisms**Finding:**

Short courses continued to prove useful, a quick and effective means of redressing deficiencies in research capability. The problem of quality was pointed out: (e.g., the need for well designed, organized curriculum; combination of theory and practice; tailoring the course to specific need).

Recommendation:

1. The problem of quality is related to continuity and longer term commitment. Support emphasis should be for courses which have continuity and longer term commitment. This enables systematic monitoring, evaluation, and improvement.

F. Degree Programs**Finding:**

1. Continued emphasis and greater numbers were suggested.

Recommendation:

1. | Given limited financial resources, degree training support should be tied up more closely with institutions where IDRC divisions have active relationship or longer term interest.

G. Integrated Approach**Finding:**

1. Multi-disciplinary research and training projects were recommended by interviewees. This was also expressed by some members of the IDRC Board of Governors.

Recommendation:

1. Although the nature of IDRC's organizational structure makes inter-disciplinary research difficult, higher level management decision can push this further on an experimental basis through multi-divisional task force. Multi-disciplinary training projects are possible if divisions promote multi-disciplinary research.
2. Another option to promote inter or multi-disciplinary training is for FAD to be given the responsibility to handle the "small grants program". These are projects with training and research components. The projects can focus on multi-disciplinary design and methodology. FAD is a logical IDRC division to promote an integrated, multi-disciplinary approach because of its Centre-wide coverage. An integrated, multi-disciplinary approach to research training is an exciting potential for innovation.

H. Networking

Finding:

1. The value of networking which IDRC has been widely practising found support from interviewees.

Recommendation:

1. FAD has taken advantage of this networks by linking IDRC-supported institutions in a trainor-trainee or trainor-trainor relationship. Linking IDRC-supported institutions through training projects/awards should be a quicker means of building research capability in selected institutions. More of this networks should be encouraged and developed.

I. Demand Response vs. Supply Initiative**Finding:**

1. Interviewees favored the Centre's philosophy of responding to research and training needs (demand) expressed by nationals of developing countries. At the same time they recognized the potential for innovation of Centre-supplied ideas.

Recommendation:

1. FAD has, in most cases, applied the "demand response" style in its operation. Experience shows that "demand response" is easier to handle than "supply initiative". Nevertheless, the latter's potential as a means of developing innovative ideas should be kept in mind.

J. Miscellaneous Feedback on Substantive Issues

Interviewees made some useful suggestions which can guide FAD operation. For example, the potential multiplier effect of pre-project awards to project leaders is a good criterion to follow when "priority" decisions have to be made. Another useful suggestion was to support training in dissemination of research results. This reaffirms the importance of training projects within the areas of dissemination supported by FAD in collaboration with Communications Division.

APPENDIX A

Logical Framework for Evaluation

FELLOWSHIPS AND AWARDS DIVISION

Logical Framework for Evaluation (FAD-supported training)

Areas to be Evaluated	Objectively Verifiable Indicators	Methods of Verification	Sources of Information/Sample
1. Types and quantum of training (e.g., group training, PRA, project-related, etc.)	Inventory of training projects, individual awards; budgets	Listing of projects and awards and their budgets according to types	Updated Inventory
2. Sources of trainees	List of institutions and countries where trainees come from, IDRC division project in the institution	Tally after list of institutions (arranged by country) number of trainees (indicate type of training). Indicate what IDRC division, if any, has project in the institution	Project and award files
3. Trainer institutions	List of trainer institutions and areas of training	Listing trainer institutions by country, area of training, division served by training	Project files
4. Impact of FAD training: - Supportive role - Post Training activities of trainees - Kinds of skills gained in training	<ul style="list-style-type: none"> - Institutions where FAD-supported trainees came from - Responses from mailed questionnaires 	<ul style="list-style-type: none"> - Establish match between FAD trainees' institutions and division projects in those institutions - Classify and analyse questionnaires responses 	<ul style="list-style-type: none"> - Data from FAD and Centre list of divisional projects - Mailed questionnaires

Areas to be Evaluated	Objectively Verifiable Indicators	Methods of Verification	Sources of Information/Sample
5. Cost Training	Cost of FAD-supported degree and short-term training via various recipients/institutions	Compute cost of training per trainee per year (for degree) and cost per trainee per day (for group training)	FAD files
6. Mechanisms	Feedback from interviewees about types of training supported by FAD; various approaches used by FAD	Personal Interview of selected awardees/recipients	Interviews

FELLOWSHIPS AND AWARDS DIVISION

Logical Framework for Evaluation (In-Project)

Areas to be Evaluated	Objectively Verifiable Indicators	Methods of Verification	Sources of Information/Sample
1. Types of in-project training	<ul style="list-style-type: none"> - Specified types of training in project documents 	<ul style="list-style-type: none"> - Listing, classifying types of training in projects with training components 	Project files
2. Contribution of training (trainee) to the project	<ul style="list-style-type: none"> - Dates/duration of project; dates/duration of training - Actual role in the project 	<ul style="list-style-type: none"> - Comparison of dates/duration between project and training - Questionnaire and/or interview of trainee and/or supervisor re trainee's role in project 	Project File Questionnaire and/or interview
3. Impact of training	<ul style="list-style-type: none"> - Trainee's role in project and aspects of his/her training applied in the project - Contribution to institutional research capability (e.g., being involved in another research project or research management) - Contribution to research in general (e.g., publication) - Future potential (e.g., promotion) 	<ul style="list-style-type: none"> - Mailed questionnaire to trainee - Interview of trainee and supervisor/superior 	Questionnaire responses; personal interview information
4. Magnitude of training	<ul style="list-style-type: none"> - Amount of training budget (specify type of training program e.g., degree, type of non-degree or short-term) - Percent of training budget in relation to project's total budget 	<ul style="list-style-type: none"> - Secure amount for training and total amount of the project - Compute percentage of training budget 	Project Files

APPENDIX B

Tables

TABLE I

Projects/Awards and Budgets Spread of FAD Training Programmes, 1982-84

Division/Sub-Division	GROUP		PRA		PRE/POST			INSTITUTIONAL SUPPORT			TOTAL	
	No. of Projs	Amt	%	No. of Awards	Amt	%	No. of Awards	No. of Projs	Amt	%	Amt	%
AFNS: AE	-	-	-	6	22,470	4	-	-	-	-	22,470	1
CAPS	-	-	-	1	14,400	3	1	11	172,880	39	197,710	9
Fisheries	1	115,500	12	17	268,044	47	2	11	268,260	61	737,329	34
Forestry	2	179,200	19	-	-	-	-	-	-	-	179,200	8
PPS	1	46,500	5	2	25,780	5	3	-	-	-	11,378	5
SSD: Econ/R Dev't	1	66,080	7	2	77,793	14	1	-	-	-	152,065	7
Education	1	52,760	5	1	12,915	2	-	-	-	-	65,675	3
Population	-	-	-	1	18,336	3	2	-	-	-	69,746	3
Urban	2	114,345	12	-	-	-	-	-	-	-	114,345	5
S & T	-	-	-	2	30,293	5	-	-	-	-	30,293	1
HSD:	1	58,467	6	-	-	-	-	-	-	-	58,467	3
ISD:	1	64,380	7	6	89,840	16	3	-	-	-	192,195	9
COOP:	1	64,100	7	-	-	-	-	-	-	-	64,100	3
COMM:	1	190,770	20	1	8,600	1	-	-	-	-	199,370	9
Total	12	952,102	100	39	568,471	100	12	3	441,140	100	2,194,343	100

TABLE II

MATCH* OF FAD PRAS AND PRE/POST AWARDS WITH
DIVISIONAL INTEREST IN RECIPIENT INSTITUTIONS, 1982-84

Number/ Percentage	AFNS			SSD			HSD			ISD		
	Match	No Match	Total	Match	No Match	Total	Match	No Match	Total	Match	No Match	Total
Number	30	21	51	3	7	10	7	1	8	2	8	10
Percentage	59	41		30	70		87	13		20	80	

*There is said to be a match if FAD-supported trainees come from institutions where IDRC Divisions have project support.

TABLE III

Country and Institutional Sources of FAD-Supported Trainees, 1982-84
(Completed & Ongoing PRAS & PRE/POST)

	DIVISION/SUB-DIVISION												ISD	TOTAL
	AFNS					SSD				HSD				
	FI	FO	PP	CA	AE	ED	ECRD	POP	UR	H	W			
BANGLADESH														
o Freshwater Fisheries Station	2													2
o University of Dacca								1*						1
CHINA														
o East China Normal Univ						2								2
o Peking Univ									1				2	3
o Inst of Scientific Tech Info of China (ISTIC)													2	2
o Zhanjiang College of Aquatic Products	1													1
o Shanghai Fisheries College	1													1
o Chinagjiang Fisheries Research Institute	1*													1
INDIA														
o Banaras Hindu Univ	1*													1
o Nagpur Univ			1*											1
o ICRISAT			1*											1
o Gandhigram Inst of Rural Health & Family Welfare								1		1*				2
Sub-Total	6		2			2		2	1	1		4		18

Notes: Asterisk (*) means sub-division has project in the institution.

AFNS : FI = Fisheries, FO = Forestry, PP = Post Production, CA = Crops & Animals,
AE= Agricultural Economics

SSD : ED= Education, ECRD = Economics/Rural Development, POP = Population
UR= Urban

HSD : H = Health, W = Water

	DIVISION/SUB-DIVISION												ISD	TOTAL
	AFNS					SSD				HSD				
	FI	FO	PP	CA	AE	ED	ECRD	POP	UR	H	W			
o Gandhigram Rural Inst										1*				1
o Indian Inst of Technology										1				1
o Indian Inst of Science						1								1
o Taraporenala Aquarium	1													1
o Central Inland Fisheries Research Institute	1*													1
o University of Agricultural Science	1													1
<u>INDOENSIA</u>														
o Bogor Agricultural Univ					1									1
o Balai Penelitian Perikanan Darat (BPPD)	2*													2
o Freshwater Aquaculture Development Centre	1													1
o Inland Fisheries Research Institute	2*													2
o SEAMEO-BIOTROP													1	1
o Universitas Indonsia										1*				1
<u>MALAYSIA</u>														
o Freshwater Fisheries Research Station	1				1									2
o Ibu Pejabat Perikanan					1									1
Sub-Total	9				3	1				3			1	17

	DIVISION/SUB-DIVISION												ISD	TOTAL
	AFNS					SSD				HSD				
	FI	FO	PP	CA	AE	ED	ECRD	POP	UR	H	W			
o Malaysian Fisheries Development Authority					1									1
o Ministry of Agriculture, Development of Fisheries					1									1
o Univ Kebangsaan Malaysia										1*				1
o Univ Pertanian Malaysia	1*						1*							2
<u>KOREA</u>														
o Catholic Medical College										1*				1
<u>NEPAL</u>														
o Agricultural Projects Services Centre (APROSC)												1*		1
o Industrial Services Ctr							1							1
o Inst of Agriculture and Animal Science (IAAS)	1*													1
o Intl Centre for Integrated Mountain Development							1							1
o Ministry of Agriculture, Fisheries Dev't Division					1									1
<u>PAKISTAN</u>														
o Pakistan Agricultural Research Centre	1													1
<u>PHILIPPINES</u>														
o Bureau of Fisheries and Aquatic Resources	3*													3
Sub-Total	6				3		3			2		1		15

	DIVISION/SUB-DIVISION												ISD	TOTAL
	AFNS					SSD				HSD				
	FI	FO	PP	CA	AE	ED	ECRD	POP	UR	H	W			
o College of Inland Fisheries, CLSU	1													1
o Bicol University			2*											2
o Marine Science Center, UPLB	1													1
o PCARRD	2*													2
o SEAFDEC	3*													3
o St Louis University, College of Nursing											1*			1
o Visayas State College of Agriculture (VISCA)					1*									1
<u>SINGAPORE</u>														
o Primary Production Dept	1*													1
o National Univ of Singapore Zoology Department	1													1
<u>SOUTH PACIFIC</u>														
o Univ of the South Pacific, Fiji													1*	1
o Ministry of Natural Resources, Fisheries Div, Solomon Islands	1													1
<u>SRI LANKA</u>														
o Central Bank of Ceylon													1	1
Sub-Total	10		2	1							1		2	16

TABLE IV

FAD-SUPPORTED TRAINER INSTITUTIONS, 1982-84

Institution/ Country	FAD CATEGORIES													
	GROUP				PRA				PRE/POST				INSTITUTIONAL SUPPORT	
	AFNS	SSD	HSD	ISD	COOP	AFNS	SSD	HSD	ISD	AFNS	SSD	HSD	ISD	COMM
<u>CHINA</u>														
° NACA-Regional Lead Centre of China	X					X								
<u>FIJI</u>														
° University of South Pacific										X				
<u>INDIA</u>														
° University of Roorkee					X									
<u>MALAYSIA</u>														
° Universiti Pertanian Malaysia		X								X				
° Universiti Sains Malaysia		X												
<u>PHILIPPINES</u>														
° SEAMEO-INNOTECH		X												
° IRRI														
° Productivity and Development Centre	X													
° College of Forestry, UPLB	X					X								

X = indicate divisions whose interests are served by FAD support in trainer institutions

[illegible]

TABLE V
GROUP TRAINING
Follow-up of Trainees (1982-84)

Follow-up of Trainees (1982-84)				Usefulness/Application of Training			Trainees' Post Training Activities											
Title and File No.	Trainer Institution	No. of Trainees	No. of Replies	Useful		Not Useful	Res	Teach	Trg	Admin	Combinations							
				Very Useful	Useful						Rte	RTr	RA	TeTr	TeA	TrA	Dch	
Agro-Industry Management (3-P-84-0035)	Productivity and Development Center, Philippines	28																
Specialized Information Centers (3-P-84-0036)	Asian Institute of Technology	20	15	9	6		4		1	1	1	2					1	5
Forestry Research Management (3-P-84-0037)	National University of Singapore	26																
Developing Researchers for Educational Development Projects (3-P-83-0016)	SEAMEO-INNOTECH, Philippines	15	10	2	6	2	7				3							
Second Forestry Research Course (3-P-83-0055)	University of the Philippines at Los Banos, College of Forestry, Philippines	27	15	6	9		7	1			3	3	1					
Integrated Fish Farming (3-P-83-0230)	NACA Regional Lead Centre of China	9	3	2	1		2					1						
Urbanization in Developing Countries Phase II (3-P-83-0347)	Universiti Sains Malaysia, Malaysia	15	10	7	3		3				2	2	1					2
Urbanization in Developing Countries Phase I (3-P-82-0242)	Universiti Sains Malaysia, Malaysia	13	9	2	7		1	1			6	1						

Title and File No.	Trainer Institution	No. of Trainees	No. of Replies	Usefulness/Application of Training			Trainees' Post Training Activities										
				Very Useful	Useful	Not Useful	Res	Teach Trg	Admin	Combinations							
										Rte	RA	TeR	TeA	TrA	Dch		
Livestock Development (3-P-82-0170)	Kasetsart University, Thailand	23	18	11	7		4					11	3				
Participatory Training Approach to Community Development (8'desh) (3-P-83-0191)*	Village Education Resource Centre, Bangladesh	50															
Editing & Publication Production Training (3-P-83-0036)*	IRRI, Philippines	24															
Postgraduate Hydrologic Education & Research (3-P-84-0255)*	University of Roorkee, India	12															
Total:		262	80	39	39	2	28	2	1	1	1	26	12	0	2	0	1 7
*Follow up of participants/trainees is done six months after the completion of the course. The courses with asterisks have just been completed or recently been approved for funding.																	

TABLE VI

POST-TRAINING ACTIVITIES OF FAD-SUPPORTED TRAINEES, 1982-84
(PRA & PRE/POST)
(Based on Responses of Questionnaires)

Division/Sub-Division	Activities							TOTAL
	Res	Teach	Admin	Combinations				
				RT	RA	TA	RTA	
<u>AFNS</u>								
Ag. Economics	1	1	1	1				4
Fisheries	1			1	1			3
PPS					1			1
CAPS				1			1	2
<u>HSD</u>								
Health				2			3	5
<u>SSD</u>								
Econ/R Devt		1						1
Population				1				1
Total	2	2	1	6	2	0	4	17

TABLE VII

Comparative Cost* to IDRC OF Training via National vs via International Institutions (In CAD)

Program	Trainer	NATIONAL				INTERNATIONAL			
		Recipient	No. of Trainees	Cost/ Trainee/ Course	Cost/ Trainee/ Year	Recipient	No. of Trainees	Cost/ Trainee/ Course	Cost/ Trainee/ Year
MSc Agriculture	UPLB	VISCA	10	6,050 (2½ yrs)	2,420	IRRI (Bhutan)	2	64,910 (3 yrs)	21,637
MSc Fisheries Econs	UPM	UPM	6	11,803 (2 yrs)	5,902	ICLARM	4	20,760 (2 yrs)	10,380
MSc Agronomy	UPLB					MWANGA (Trainee)	1	16,940 (2 yrs)	8,480
MSc (standard SEARCA rate)	UPLB					SEARCA	standard rate per trainee	14,640 (2 yrs)	7,320
On-the-job Practical Attachment	IRRI					MBECE (Trainee)	1	6,575 (6 mths)	13,150
Post-graduate Diploma/MSc (Hydrology)	Roorkee Univ	Roorkee Univ	12	5,342 (1 yr)	5,342				

*All airfares are excluded

TABLE VIII

FAD-FUNDED SHORT-TERM TRAINING PROJECTS: COMPARATIVE COST TO IDRC
(in CAD)

Project	Trainer Institution	IDRC Division	Duration in days	No. of Trainees	Total Budget	Cost	
						Per Trainee	Per Trainee/day
Forest Research Management (3-P-84-0037)	National Univ of Singapore (NUS)	AFNS Forestry	18	26	76,500	2,942	163
Specialized Information Centres (3-P-84-0036)	Asian Inst of Technology (AIT)	IS	15	22	64,300	4,593	306
Editing and Publication Production Training (3-P-83-0336)	IRRI	COMM	112	24	564,677	23,528	210
Second Forestry Research Course (3-P-83-0055)	UPLB, College of Forestry	AFNS Forestry	76	28	82,200	2,935	39
Urbanization in Developing Countries (3-P-82-0242)	Universiti Sains Malaysia (USM)	SSD Urban	30	15	66,000	4,400	146

TABLE IX

DIVISIONAL PROJECTS WITH AND WITHOUT TRAINING
(1950-84)

Division Sub-division	W/Tng*		W/O Tng		Total No. of Projects	
	No. of Projects	%	No. of Projects	%	No.	%
AFNS: CAPS	20	66.7	10	33.3	30	36.0
Fisheries	10	76.9	3	23.1	13	16.0
Forestry	9	69.2	4	30.8	13	16.0
PPS	11	42.3	15	57.7	26	32.0
Sub-total:	50	60.9	32	39.1	82	100.0
COMM:	2		2		4	
Sub-total:	2	50.0	2	50.0	4	100.0
COOP:	3		0		3	
Sub-total:	3	100.0	0	0.0	3	100.0
HSD: Maternal/Child Health	13	48.1	14	51.9	27	43.0
Occ & Environ Health	5	55.6	4	44.4	9	14.0
Water & Sanitation	9	52.9	8	47.1	17	26.0
Trop & Inf Diseases	2	18.2	9	81.8	11	17.0
Sub-total:	29	45.3	35	54.7	64	100.0
ISD:	12		10		22	
Sub-total:	12	54.5	10	45.5	22	100.0
SSD: Education	6	75.0	2	25.0	8	15.0
Econ/R Devt	9	42.9	12	57.1	21	39.0
Population	4	57.1	3	42.9	7	13.0
S & T	5	83.3	1	16.7	6	11.0
Urban	6	50.0	6	50.0	12	22.0
Sub-total:	30	55.6	24	44.4	54	100.0
GRAND TOTAL:	126	55.0	103	45.0	229	100.0

TABLE X

BUDGET SIZE OF IN-PROJECT TRAINING, 1980-84

Division/Sub-Division	Total Budget of Project	Training Budget	
		Amount	Percentage
<u>AFNS</u>			
CAPS	7,400,610	1,911,281	25.83
Fisheries	2,373,170	608,800	25.65
Forestry	2,192,780	200,100	9.13
PPS	1,815,000	222,288	12.25
Percent Average	18.22
<u>COMM</u>	79,455	77,955	9.81
<u>COOP</u>	322,100	782,175	41.18
<u>HSD</u>			
Maternal/Child Health	2,114,286	136,245	6.44
Occ. Health & Environ			
Toxicology	732,350	95,489	13.04
Water & Sanitation	874,770	97,240	11.12
Percent Average	10.2
<u>ISD</u>	2,173,355	772,177	35.53
<u>SSD</u>			
Education	719,100	69,356	9.64
Econ/R Devt	917,900	142,220	15.49
Population	437,500	8,980	2.05
S & T	363,000	32,905	9.06
Urban Policy	760,600	91,800	12.07
Average	15.35

TABLE XI

TYPES OF IN-PROJECT TRAINING, 1980-84

Division/ Sub-Division		Types of Training*											Grand Total	
		No. of Degree Trainees				No. of Non-Degree Training Activities								
						B	M	D	Tot	TC	RA	WK		SC
AFNS:	CAPS		18	2	20	13	4	7	1	4	4	9	42	62
	PPS		4	2	6		1	3		1	1		6	12
	Fisheries		7	3	10	8	3	2		3		1	17	27
	Forestry		4		4	1	6		1	1			9	13
HSD:	Health					4		12	3		2	1	22	22
	Water					3	2	4	2	1			12	12
ISD:			1		1	4	3	7	1	9	1	4	29	30
SSD:	Econ/R Devt					1		5	5				11	11
	Population							1	3				4	4
	Education							2	3			3	8	8
	S & T			1	1				1	1		1	3	4
	Urban							2	4		2		8	8
Total			34	8	42	35	20	45	24	20	10	20	171	213

- * B - Bachelor
M - Master
D - Doctor
TC - Technical Course
RA - Research Attachment
WK - Workshop
SC - Seminar/Conference
ST - Study Tour
PM - Project Meeting
OTH - Others

TABLE XII
IN-PROJECT DEGREE TRAINING, 1980-84*

Division/ Sub-division	BUDGET (CAD)													
	Type of Degree Training		Training Location				Local/Regional				Developed Country			
			Local/ Regional		Developed Country		MSC		PHD		MSC		PHD	
MSC	PHD	MSC	PHD	MSC	PHD	Total	Average	Total	Average	Total	Average	Total	Average	
AFNS:	18	2	7	1**	10	2	90,000	12,857	1,200**	1,200**	385,000	38,520	83,000	41,500
Fisheries	7	3	3	1	4	2**	29,900	9,967	15,800	15,800	160,000	40,000	65,000	60,000
Forestry	4	0	4	0	0	0	15,400	3,850***	0	0	0	0	0	0
PPS	4	2	3	1	1	1	48,000	16,000	33,000	33,000	40,000	40,000	55,000	55,000
ISD:	1	0	1	0	0	0	10,000	10,000	0	0	0	0	0	0
SSD:	0	1	0	0	0	1**	0	0	0	0	0	0	8,700**	8,700**
TOTALS:	34	8	18	3	15	6	193,300		50,000		585,200		211,700	
GRAND TOTAL in CAD: 1,040,200														

* A total of 21 projects were identified as having in-project degree training component in their budgets during the period, except 1984 where only a partial number of projects were reviewed.

** Partial support

*** 1984/85 - 1985/86

TABLE XIII

POST TRAINING ACTIVITIES OF IN-PROJECT TRAINEES,* 1980-84

(based on returned questionnaires)

Division/Sub-division	Activities								TOTAL	
	Res	Teach Trg	Admin	Combinations						Nil
				RT	RA	TA	RTA	RTTA		
AFNS: CAPS	2	1	2	1					2	8
Fisheries	2		2	1	1	1	2		1	10
Forestry		1								1
PPS							1			1
HSD: Water		1		1		1				3
ISD		1								1
SSD: Econ/R Devt				1			1			2
Education		1	1							2
Population		1								1
S & T		1								1
Urban							1	1		2
Total	4	7	5	4	1	2	5	1	3	32

* Individual in-project trainees
(does not include recipient-administered trainees)

TABLE XIV

PARTICIPATION OF IN-PROJECT DEGREE TRAINEES IN THE PROJECTS
AFTER COMPLETION OF TRAINING, 1980-84

Division/Sub-division	No. of Research Projects whose Durations are Longer than Degree Training Component	No. of Degree Training Components whose Durations are longer than the Research Projects	Total
<u>AFNS</u>			
CAPS	10	10	20
Fisheries	6	4	10
Forestry	2	0	2
PPS	3	3	6
<u>ISD</u>	1	0	1
<u>SSD</u>			.
S & T	0	1	1
	=====	=====	=====
Total	22	18	40
	=====	=====	=====

APPENDIX C

Aquino's Report

TO : Dr Pedro V Flores

26 March 1985

FROM : Dr Conrado P Aquino

RE : Report on the Follow-Up Interviews

I am submitting the attached Report on the Follow-Up Interviews for your perusal and comments.

Please note that some findings are opinions/comments unanimously or generally expressed, others individually or singly. The latter may, at this time, seem isolated or merely expression of a single instance. However, they are included here, not only because each is a reaction to a serious research or training, meaningful to the researcher/trainee or to the institution/agency, but also because they are indicators of possibilities, relevant to research activities. Besides, since one research and its findings are an important link to or contribution to the body of researches, all comments and opinions are significant revelations for the furtherance and improvement of research and its training component.

Please note, too, that the format of the Report does not strictly adhere to the usual format of IDRC or FAD reports. This is intentional: I meant to give a full impact to the Findings by grouping them by themselves; likewise, the Recommendations. I hope I have succeeded.

Please let me know when you would like to discuss this - at your convenience, of course.

Thank you for the opportunity to serve you, FAD and IDRC.


CONRADO P AQUINO

REPORT ON THE FOLLOW-UP INTERVIEWS

I FOREWORD

IDRC believes "that training is a necessary condition for effective research and for building research capability in developing countries." (Training Policy Study, 1981, p. 9)

However, an evaluation of the training programs and activities is imperative, if this avowed purpose is to be achieved; thus, the evaluations from time to time. The present exercise has been initiated on the recommendation of the Internal Audit Report of April 1983 for an expanded evaluation.

A facet of the expanded evaluation is a follow-up interview of a sampling of respondents or their authorized spokesmen to a questionnaire sent out to grantees and awardees; additionally, the Director of the Research Center, Universitas Indonesia in Jakarta, and the Director General of the National Aquatic Resources Agency (NARA) in Colombo (cf. Appendix A: List of Interviewees). This is its Report.

II FINDINGS

1. Short-term Training

- 1.1 Short-term training, in varying degrees of effectiveness, have proved themselves useful.

Verification: This is indicated in the responses to the questionnaire and shared up during the interview of sampled respondents.

- 1.2 Workshops, using learning modules, and actual field work are a most effective learning situation.

Verification: Interviewees expressed this unanimously.

- 1.3 Strong programs are those specifically designed for a group, being trained to meet a definite need.

Verification: This is borne out by, among others, Daim's (Kuala Lumpur) training in Evaluation and Planning, Budiardjo's (Jakarta) at the International Rural Reconstruction Movement and Chamnarn's (Bangkok) at the British Museum.

- 1.4 A weakness observed in group training is the heterogeneity in the background (academic and experiential) and skill of the participants, especially when participants come from different countries or agencies.

Verification: An illustrative example is the group training at SGV (Philippines) in Financial Management, at which a licensed highly experienced CPA sat in with an administrator without an accounting background and young accountants without much experience (Sathasivam, Peradeniya). The necessity of checking the background of participants was stressed (Jayawardena, Peradeniya).

- 1.5 Another weakness observed is the faulty organization of subject matter and schedule, or the omission of what some trainees believe is essential to the program.

Verification: Some courses have no definite program (Dayat, Bogor) or no fixed schedule (Sudarto, Bogor, in response to questionnaire); organization of topics weak (Budiardjo, Jakarta); lack of extramural activities (Daim and Arshad, Kuala Lumpur); field practice demonstration not up to par (Shanmugam, Tamil Nadu).

- 1.6 A set program in a trainor-institution is designed either as too inflexible as to meet the expectations of the participants or as too national (geared to the situation and circumstances of one country) as to be meaningful to participants from other countries.

Verification: Some courses at IRRI and SEARCA (Philippines) are such set programs, according to those who have taken such a program (Jayawardena, Peradeniya).

- 1.7 An experiment in connection with the in-project training grant is discontinued at a crucial time (that is, crucial to the experiment) because the home-institution of the grantee disapproves the extension of his study leave.

Verification: A second experiment, which was in line with a first, was aborted only two (2) months away from conclusion, because the experimenter (the grantee) could not get a 2-month extension to his study leave (Coloso, Philippines).

2. Masteral and Doctoral Programs

- 2.1 Awards for the pursuit of masteral or doctoral programs should continue, even increased, but without prejudice to the short-term programs, if funds are available for the increase.

Verification: All are agreed on this, some even stressing the need as essential to the development of research capability (Hussan, Kuala Lumpur; Perera, Colombo; Vlloria, Philippines) or to sustaining research and training even if IDRC lifts its support (Jayawardena, Peradeniya).

- 2.2 A Diploma Course of a 9-month to a year duration may be considered in lieu of a masteral program and over and above the short-term ones.

Verification: An intensive Diploma Course can meet immediate needs without the disadvantage of an extended period of learning (Somsanguan, Chiang Mai).

3. Research/Training: Further Indications

- 3.1 A research may indicate a further investigation or an in-depth analysis, or may generate a different but related idea, which, if looked into, would complete or complement the original.

Verification: Usually, this can be expected of any research and it surfaced in IDRC-approved research (MARDI: Beekeeping, Kuala Lumpur; Chaiwat: Handicraft Studies, Chiang Mai; Sikurajapathy: Cropping Systems, Peradeniya; Coloso: Milkfish, Philippines).

- 3.2 One research by itself may seem specific, and another and another, similarly. But in reality each is a part of a whole, so that the effectivity of one or its significance (i.e., usefulness to the people) depends intimately, substantially on the others, that is, on the whole.

Verification: An illustrative example is resesarch on the development of aquatic resources (the whole) and the specific researches on genetics, breeding, disease control, sea weed, etc. (the parts) and imperative to all this and to complete it is environmental planning (Perera, Colombo).

- 3.3 At its termination and as the learning effected is being applied, an in-project training may (does) indicate the need for training the group cooperating in the research.

Verification: This surfaced when the Head of a government unit began applying his learning to the task of evaluation and planning and he discovered the need for training the nine (9) sub-unit heads in evaluation and planning, who could not keep pace with him (Daim, Kuala Lumpur). As the research on infant mortality and morbidity accelerates, the need for more trained personnel becomes serious (Adiwinata, Jakarta). There is need to train a group who will fan out to the experimental living bamboo stations in four (4) provinces, even as someone is now undertaking studies toward the M.Sc. degree, who will serve as over-all supervisor (Vichien, Bangkok). The implementation of a primary health care delivery project made the project leader aware of the need for monitoring the effects, for adapting the system to other tribes and for conducting training by those already trained where needed (Chen, Kuala Lumpur).

- 3.4 Research in a particular field is hampered by a lack of expertise in an aspect of research not taken up in the in-project training program.

Verification: For example, the study of fish genetics has an in-project training component, but the lack of expertise in research methodology and statistics hampers the research in carp genetics (Dharma, Bogor).

- 3.5 Not all researchers have access to computerization of data nor have computerization skill. Further, there is need for experts in statistical designs for data support to decision-making.

Verification: This is a common expression of concern among those not using computers.

- 3.6 Designing devices for dissemination of information to people in the rural areas or in urban distressed areas is facilitated by the use of sophisticated or modern means and systems of communication, provided the devices are within the level of comprehension and attraction of the target-people. Corollary to this is the enrichment of the museum and the mobile exhibits with the end in view of developing people awareness. Thus, there is the need for continuing education on two (2) levels: one, research and conceptualization; two, production arts and technics.

Verification: For example, there is the continuing effort to disseminate information about malaria and its control, and to improve on the effort itself (Sornmani, Bangkok).

- 3.7 The research and its training component have produced results clearly beneficial to its target-people, but their dissemination: contents and mechanism, has not been planned, as there has been no training for this.

Verification: The question was raised: what good is the research, if it is not extended to the people who need it, that is, its beneficiaries? - this in relation to the development/education of extension workers (Sikurajapathy, Peradeniya).

4. Research Network

- 4.1 Networking of research institutions/centres: governmental (GO's) and non-governmental (NGO's), national and non-national, regional and inter-regional, is desirable. It is good for the growth and development of research.

Verification: Interviewees expressed this unanimously.

- 4.2 Although professional or academic associations, or associations by discipline are not research institutions/centres, strictly speaking, still they conduct researches either individually or collectively. The network should establish a relationship with them.

Verification: For example, the ASEAN Council for Higher Education in Environment (ACHEE), whose members conduct researches which are discussed at a seminar (Viloria, Philippines). There are a number of similar associations in the region.

- 4.3 Some organizations already have linkages with other agencies because of the nature of their work. The network should relate with them, or facilitate working with the linkages.

Verification: For example, World Vision International has linkages with other agencies (Budiardjo, Jakarta); or TROPMED of Mahidol University, a SEAMEO project (Viroj, Bangkok).

- 4.4 Initially, the network may encompass only fields of research in accordance with IDRC's priorities, namely, Agriculture, Food and Nutrition Sciences; Health Sciences; Social Sciences; and Information and Communication.

Verification: Since IDRC is already involved in these fields of research and training on a regional basis and is in contact with other agencies in other regions, networking in these fields is a good start (Somsanguan, Chiang Mai).

- 4.5 Interdisciplinary researches are needed, both at the local/national and regional level to make researches more truly people-oriented. The network can facilitate the interdisciplinary contacts.

Verification: Culture and ethnicity cannot be dissociated from the study of handicrafts as a livelihood means, nor from its economic aspect: marketing (Chaiwat, Chiang Mai); information and communication devices must be encultured to be easily understood (Viroj, Bangkok); programs designed for abandoned children must reckon with socio-economic considerations (Budiardjo, Jakarta); environmental planning is basically interdisciplinary (Viloria, Philippines).

- 4.6 The network could bring together in a discussion panel top level research managers, either by field or by interdiscipline, depending on the objective of the discussion, at which the expected outcome is: confrontation of ideas always generates another idea or enriches one, or if a synthesis results, this, in turn, becomes another thesis for a future antithetical discussion. The network can vitalize this major research step.

Verification: This opinion surfaced in a conversation on what might be the thrust in the next few years of IDRC-FAD (Perera, Colombo).

- 4.7 The desirability or need for a research consortium within the region may arise from time to time. The network can facilitate its planning, formation and operation.

Verification: This was generally expressed by the interviewees.

5. Demand Response vs Supply Initiative

- 5.1 In the region, the need for support to research and to the development of research capability is still serious and urgent, and will be for some time yet. IDRC should continue its commitment to this support by responding to demand in the manner it has been doing, or, if feasible, more so.

Verification: Interviewees underlined this.

- 5.2 To complement demand response, a survey should be initiated of the region's supply of institutions/centres with adequate research infrastructure, researchers/trainors and their availability, training programs, including the region's needs/areas for research.

Verification: Interviewees believe this is important as the information, when disseminated, will be valuable as their institution/agency plan their research or training.

- 5.3 For a long time yet, there will be more demand response. As IDRC gets to be known more and more - and supply initiative will make IDRC more known in and outside the region - there will yet be an increase in demand. Unless safeguards are instituted, funds could be dissipated.

Verification: This concern was expressed strongly but without prejudice to the idea of supply initiative (Chen, Kuala Lumpur).

- 5.4 IDRC goes for novel ideas. Supply initiative will discover novel ideas, which may be neglected unless the initiative to have them looked into is taken.

Verification: This surfaced when the query was raised about what supply initiative should look for (Sikurajapathy, Peradeniya).

- 5.5 As a supply initiative activity, consultation with policy makers and other consultative groups should be made on a regular basis. This creates supply and identifies the needs, even priorities them.

Verification: The idea was broached to the interviewees and there was agreement.

- 5.6 As a supply initiative activity, there should be a study of the courses offered by the trainor-institutions to make sure that they are the ones needed, that is, match courses with the needs of the applying institution/agency.

Verification: Mismatch between course and need has been observed (Jayawardena, Peradeniya).

- 5.7 As a supply initiative activity, there should be an inventory of the needs in the region, monitored to the institutions/centres, especially to those with research capability, or these needs matched with the demand response. Either makes for a more effective use of resources and a more rational distribution of funds.

Verification: This opinion was expressed when the interviewees were asked about what the supply initiative might look into (Adiwinata, Jakarta; Budiardjo, Jakarta; Somsanguan, Chiang Mai).

- 5.8 As a supply initiative activity, there should be a codification of all the laws and regulations in each country in the region, governing researches and their findings, to forestall problems and issues that could jeopardize the research/training or delay it unnecessarily or the release of the findings.

Verification: A sense of frustration surfaced when the interviewees were asked about the government's attitude or assistance toward research (Dharma, Bogor; Arshad, Kuala Lumpur; Somsanguan, Chiang Mai).

6. Other Findings

- 6.1 The interviewees were asked what their special concerns were, and the following were some of their replies:

- 6.1.1 Much time is lost in getting government approval for research design/funds (e.g. two (2) years), equipment/materials and tax exemption for importation, principally because of government bureaucracy (Indonesia).

- 6.1.2 Research cannot be completed or findings released are incomplete because the government considers the materials it has, relevant to the research, as confidential or they have not been declassified (Malaysia).
- 6.1.3 The application of knowledge and skill gained at an in-project training is rendered useless when a government policy covering the project is amended or reversed (Malaysia).
- 6.1.4 An association of former grantees and awardees should be organized and reunions held for an exchange of information about their researches/activities and to maintain contacts. This is in line with networking.
- 6.1.5 IDRC should give some support to a research consortium commissioned by a professional association (e.g., the ASEAN Council of Higher Education in Environment or ACHEE) and to an exchange of researchers and professors, especially in connection with the research consortium.
- 6.1.6 There is a need for a Directory of researchers/researches, research stations and training centres in the region (and other regions, if possible) by area or discipline and by country.

6.2 Following are some of my own observations:

6.2.1 Based on the findings of a brief interview and ocular visit, some of the institutions/centres with adequate research facilities are: one, the Malaysian Agricultural Research and Development Institute (MARDI), a government institution exclusively dedicated to research either on its own or in cooperation with other entities, e.g., Universitas Pertanian Malaysia (UPM), whose most recent finding is the carambola tree as a very prolific source of nectar for beekeeping, as the tree flowers every 6 weeks, (the commercialization of the honey is now under study) and whose research involves the local farmers; two, Universitas Indonesia with its university-wide Research Center, headed by a Director (formerly the Vice-President for Academic Affairs), and research units in each of the Faculties, whose major undertaking now is Urban Studies involving not only the University but also governmental and non-governmental agencies, with funding from various sources and whose findings and recommendations will be submitted to the government for possible inclusion in the next 5-year plan; three, National Aquatic Resources Agency (NARA) in Colombo, whose Director General is a most knowledgeable man whose perspective is wide and whose concept of research is comprehensive, not unaware of the agency's weaknesses and needs; four, Faculty of Tropical Medicine, Mahidol University in Bangkok, in collaboration with the Southeast Asia Ministers of Education Organization (SEAMEO), involved in the research on mosquito-borne diseases (of benefit to ASEAN), with a Dean who is forward-looking and knowledgeable about the development of his science.

6.2.2 Considering their prospective impact on the life of the people, the research areas of high priority (prescinding from a comparison with other researchers) are: one, aquatic resources in Indonesia, Sri Lanka and Philippines, as the growing population of the region needs more sources of food; two, TROPMED in Thailand, as mosquito-borne disease still plague Southeast Asia; three, beekeeping in Malaysia, as it not only meets nutritional needs but also give additional income to small farmers and to the country when honey will have been exported; and four, community health in India, as the concentration of people in some areas which are without a water system poses problems of hygiene and sanitation.

6.2.3 In the institutions/agencies visited, there is a collaborative support from both national or governmental and non-national or non-governmental organizations. Hence, IDRC's appropriate balance of emphasis may not be gleaned from this. Rather, the determinant factor in IDRC's support-emphasis may be a consideration of the importance and seriousness of need of the research, that is, its usefulness to the people. Accordingly, it can decide further on whether to fund it totally or partially.

6.2.4 There are three (3) young grantees, who are seemingly strong potentials for a research management position and should be encouraged to pursue further studies leading to a doctoral degree. All three (3) are in research, in teaching (transfer of knowledge) and in some degree of supervisory work (transfer of research techniques). They are K P U de Silva of the National Aquatic Resources Agency (NARA) in Colombo, C Ramanujam of the Gandhigram Institute of Rural Health and Family Welfare in Tamil Nadu and R Coloso of SEAFDEC in Iloilo City.

III RECOMMENDATIONS

1. Short-term Training

- 1.1 The number of grants for short-term training should be maintained, even increased, if funds are available.

Justification: For a long time yet, the need of the region for the development of research capability through the fastest but effective means will persist. Short-term training has proved itself effective, tho' in varying degrees.

- 1.2 The usefulness of the short-term training should be improved by any or all of the following:

- 1.2.1 emphasis on workshop with learning modules and/or field work;
- 1.2.2 homogeneous composition (academic and experiential background) of the group in a group training program, if the program is specific in content and objective. Otherwise, heterogeneous, if the content and objective are common to all;
- 1.2.3 improved organization and schedule of subject matter (topics) and adequate extramural activities (e.g., field work/demonstration), where needed;
- 1.2.4 a more flexible program of studies in trainor-institutions to be responsive to the needs and expectations of the trainees, especially if they come from different countries, rather than a set program geared to only one situation or country;
- 1.2.5 more trainor workshop in each country in the region or in the field of common need in the region.

Justification: The above cited improvements, as suggested by the interviewees, are reasonable, if the usefulness of the short-term training is to be maintained, even enhanced. Further, the funds are used more effectively.

- 1.3 The validity of the short-term training should be tested by requiring grantees to give evidence of immediate usefulness when their acquired learning and skill will have been put to use.

Justification: Only the grantees, the end-users of the training, can evaluate its validity. Their experience with the program and their evaluation of it are necessary for its improvement or enrichment.

2. Masteral and Doctoral Programs

- 2.1 More awards for masteral and doctoral studies should be given and funds for these located.

Justification: High priority is the development of research capability. Short-term training focuses only on a specific need for a definite purpose. While this is helpful, there may not be a continuing effect. However, where the research personnel have a masteral or doctoral training, the research capability of the institution/agency is strengthened, as such training has a multiplying effect: research discipline and mind frame are transferable; further, it widens perspective and deepens insight.

- 2.2 Thesis grants or assistance may be given to masteral and doctoral students whose completion of the degree is pending for lack of thesis.

Justification: For lack of funds a graduate student is unable to comply with the thesis requirement (assuming all other requirements have been fulfilled). To forestall loss of his expertise to the institution/agency or to maximize the use of funds for masteral and doctoral studies, it is logical to give thesis grants.

- 2.3 The home-institution/agency should be required to bear part of the cost of the grantee's masteral or doctoral studies, that is, a self-help component of the grant, if this is not so required yet and if it is, to increase its support.

Justification: The self-help component assures the grantee sufficient funds for the pursuit of his degree (there is the experience of a grantee who suffered mental anguish and physical hardships for lack of funds, as the grant paid only for the tuition and other fees). In turn, the institution/agency can require the grantee to return to service.

- 2.4 Where feasible (as has been done), a grant for a Diploma Course of a 9-month to a year duration may be given in lieu of a masteral or doctoral program.

Justification: The Diploma Course can serve an immediate purpose or fill a serious need, which both short-term training and masteral or doctoral studies cannot: the former, because it is intended to achieve immediate results in the shortest possible time; the later, because it will take too long a time to finish. However, this should be resorted to on a highly selective basis and only if the Diploma Course will serve the purpose.

- 2.5 On the one hand, some mechanism should be developed for making grantees commit themselves to return to their home-institution/agency after the training. On the other, the home-institutions/agencies should be required to provide the grantees with adequate research facilities and/or teaching environment to enable them to put their learning to use; further, job incentives to make their work satisfying.

Justification: On the one hand, the failure of the grantee to return is a double loss to the home-institution/agency: loss of his service during the period of training and loss of his expertise after the training. On the other, when the grantee returns and finds the home-institution/agency unable to provide him with adequate equipment/material or he is given no job incentives, he suffers frustration and he could opt to leave.

3. Research/Training: Further Indications

- 3.1 Should the Division concerned (e.g. AFNS) approve the extension of a research grant because the original research has indicated further investigation or an in-depth analysis or has generated a different but related idea which, if looked into, would complete or complement the original, priority support should be given to its training component, if needed.

Justification: To let go could result in aborting what might well be a significant research finding or render the original ineffective or useless.

- 3.2 In an instance where the researches are concerned with specific areas but which in fact are parts of a whole and training components are indicated, priority support should be given to these, if needed.

Justification: While individual researches have their own specific usefulness, still as parts of a whole, they contribute their share to the over-all usefulness. It is when the whole is developed that each part functions effectively (the example is Findings, 3.2, Perera, supra).

- 3.3 When a grantee returns to his institution/agency and applies the knowledge and skill gained at the training and finds his work hampered by the inadequacy of the group he is working with, or discovers the need for some aspects of a research other than the one he trained in (e.g. computer use, statistics, etc.), support to a training program should be given, as needed or requested.

Justification: It is logical that the continuity of training be assured, so that the effectivity of the original training be not dissipated or so that shortfalls or shortcomings be minimized, if not totally avoided.

- 3.4 In the instance where the immediate dissemination of the findings to its target-people is essential to the research/study, inclusion of a mechanism for such dissemination should be required in the research design/study proposal, and a training component, if needed.

Justification: If the target-people are to benefit from the findings of such a research or study, it is important and imperative that they be communicated effectively, so as to improve or enrich the quality of the target-people's life.

4. Research Network

4.1 A study group should be constituted and funded to look into the following and to make recommendations:

- 4.1.1 the feasibility of establishing a research network, taking into consideration the suggestions of the interviewees (of. Findings, 4, supra);
- 4.1.2 the objectives, limit and scope of the network;
- 4.1.3 the organization and mechanism for handling the activities of the network, programmed in accordance with its objectives, limit and scope;
- 4.1.4 the sources of funds;
- 4.1.5 the practicality of using English as the medium of communication and exchange of research information (suggested by the interviewees);
- 4.1.6 and other matters vital to the establishment and operation of the network.

Justification: Only a full-blown study can reveal the reasonableness and practicality of a research network.

4.2 As an initial attempt, the institutions/agencies who have participated or are participating in IDRC programs/projects, including their linkages, may be organized into a research network.

Justification: Since there is already an existing relationship among these participating units and their linkages and they have lines of communication, networking them is indicated. From this exercise, guidelines may be drawn up for organizing the research network.

- 4.3 As an immediate exercise in networking, the formation of more research consortia within the region should be effected.

Justification: There are problem-areas common to countries in the region. A consortium to study these common areas, rather than individual country research, will allow for more in-depth analysis. Their findings will have a regional significance, without discounting benefits to each country.

5. Demand Response vs Supply Initiative

- 5.1 Support to research and to the development of research capability through in-project training and fellowship awards should be maintained or increased, if possible.

Justification: In the region, the need for such a support is still serious and urgent, and will be for some time yet. Responding to demand, therefore, is a commitment in accordance with IDRC's objectives.

- 5.2 To complement the demand response, a survey should be initiated of the region's supply of institutions/centres with adequate research infrastructure, researchers/trainors and their availability, training programs, including the region's needs/areas for research.

Justification: When this supply will have been surveyed and the information about it disseminated, researchers and planners of research will be properly guided when they plan research and/or training. Further, there will be a ready reference for matching demand with supply. To rely on demand response alone is to limit the influence and support only to those who know about IDRC to the detriment of those who have not heard of IDRC but whose need for assistance could be more serious and urgent. This could mean the neglect of an area vital to a country's development.

- 5.3 As a supply initiative activity, the following should be looked into:

- 5.3.1 consultation with policy makers and other consultative groups on a regular basis to identify the needs, even to prioritize them, to discover novel ideas and new approaches;
- 5.3.2 a study of the courses offered by the trainor-institutions to make sure they are the ones needed by the applying institution/agency so as to prevent mismatch between course and need;

- 5.3.3 an inventory of the region's needs for monitoring to institutions/agencies and for matching needs with demand response for a more effective use and distribution of resources;
- 5.3.4 a codification of laws and regulations in each country in the region governing researches and their findings.

Justification: Supplying researchers, research planners and trainers with the above data facilitates the planning and the designing of the research and its components, and forestalls problems/obstacles that could jeopardize or unnecessarily delay the research and/or training or the release of the findings.

6. Other Recommendations

- 6.1 Support of research institutions/centres with adequate facilities for research and training should be maintained and increased, if possible, to enable them to achieve their full potential.

Justification: These institutions/centres can serve as lead trainers in the region or as centres of excellence. They, too, can be the core group in the research network.

6.2 The following should be looked into as possible additional assistance to research and the development of research capability:

- 6.2.1 facilitating the acquisition by institutions/centres of professional journals/books and equipment/materials;
- 6.2.2 supporting the institutions'/centres' application for tax exemption on the importation of equipment and materials;
- 6.2.3 helping in expediting government approval of research proposals and the release of funds for researches with a proposed training component to be requested of IDRC;
- 6.2.4 influencing the home-institution/centre of the grantee/awardee to look favorably at his request for extension of leave to enable him to complete his study/research.

Justification: The difficulties above-cited are obviously deterrents or obstacles to the successful conduct of research and training. Such assistance will minimize their deleterious effects, if not totally eliminate them.

6.3 Trained researchers and trainers should be given continuing education grants on a short-term basis to enable them to visit research stations, training centres and attend scientific seminars-workshops.

Justification: Without continuing education grants, their knowledge and skill can, at its worst, atrophy, or at its best, develop into a rut.

- 6.4 As an immediate assistance to researchers and trainors, a Directory of researchers/researches, research stations and training centres in the region (and other regions, if possible) by area or discipline and by country, should be compiled and published.

Justification: To know what other researchers are doing, what researches have been finished and their findings, who to contact and where to get information, where to go to observe/study - all this is important to a researcher, research manager and trainor.

IV CONCLUSION

It is evident that the current experience regarding training grants of various types and the determination to improve on it, when extended region-wide to include others who have not benefitted from them, will enhance research and research capability in the region - ultimately, to the advantage of the people: the enrichment of their lives.

TO: Dr Pedro V Flores

1 April 1985

FM: Dr Conrado P Aquino

RE: Some Implications of the Findings and Data on FAD's Supportive Role and on the Trainor-Trainee Scheme

I am submitting the attached report on Some Implications of the Findings and Data on FAD's Supportive Role and on the Trainor-Trainee Scheme, in compliance with your instructions.

My observations and conclusions are obviously circumscribed within the limits of my acquaintance with FAD and IDRC. Your wider perspective of and deeper insights into the programs and operations of IDRC, in general, and FAD, in particular, give you the advantage of a more searching look into the Findings and Data. Nonetheless, mine could serve some purpose, not the least of which might be as eye-openers or as leads.

I refrained intentionally from making any observation and conclusion regarding the budget, as I do not feel competent to do so.

Please let me know when you might want to discuss this - at your convenience, of course.


CONRADO P AQUINO

SOME IMPLICATIONS OF FINDINGS AND DATA

1. On FAD's Supportive Role

Both the Findings of the follow-up interviews (cf. Report) and the Data gathered from the samples (cf. below, following, as gleaned from tabulated statistics, attached) show the need for both the masteral/doctoral programs and short-term training in the development of research capability in the region.

1.1 The Findings show a definite need, expressed by the interviewees, for the continuance, even increase in the number, of both the degree programs and the short-term training as they underlined the usefulness of the training, though in varying degrees of effectiveness. Further, in mentioning weaknesses of training, they really were offering recommendations for improvement, revealing in the process the need for more and better training.

1.2 Data on the No. of In-Projects in the Sample, 1980-1984 show that between 1980 and 1984, there were 229 projects in all the Divisions. Of these, 126 had a training component, or 55%, and 103 had none, or 45%; the peak being in 1981: 70% with training, and the lowest in 1983: 43%, the only year when those without training exceeded those with. Among the Divisions, AFNS had the highest percentage of projects with training component: 50 out of a total of 82, or 61%, except COOP: 100%, but it had only three (3) projects and they began only in 1984, so not significant. Among the four (4) Divisions with a significant percentage of in-project training grants, the percentage ranged from 61% (AFNS) to 46% (HSD), or a space interval of only 15%, or an average (simple) of 54.5%.

Observation: It is evident that the need for developing research capability is a determinant factor in planning researches in the region, as in-project training has been resorted to in a majority of the project.

- 1.3 Further, data on the Types of In-Project Training, 1980-84 show that of the total: 209, degree programs numbered 35, or 17%, and non-degree 174, or 83%. The Division with the largest share of the grants for degree programs is AFNS: 29 (22 masteral and 7 doctoral) out of 35 total for all Divisions, or 83% of all the grants and 17% only for the other Divisions. Compared to their (AFNS) total number of grants: 103, the percentage of degree programs is 28% (29 grants) and non-degree, 72% (74 grants). The 83% share of AFNS in the total number of grants for masteral/doctoral programs (or 28% of the total number of grants: 29 out of 103) is most significant; more so, if the figures on the doctoral grants are considered: of the total 10, AFNS had 7, or 70%.

Obervation: It is evident that at AFNS there is a more intensive development of research capability which will have a more lasting effect on the activities of the research institutions/centres (assuming the grantees return to service after training) or a multiplying effect, as the returned grantees can be trainors and/or research managers.

- 1.4 The data further shows that of the non-degree type of training, Workshop was most availed of: 45 out of a total of 174, or 26%; next was Technical Course: 35, or 20%; then Seminar/Conference: 24, or 14%; and 4th were Research Attachment - 20, Study Tour - 20 and Others (field trip, consultancy, etc.) - 20, or 11% each; Project Meeting was only 10, or 6%.

Observation: It is evident from this that the institutions/centres desirous of improving their research capability at the shortest possible time opted for the more intense or effective short-term training: Workshop - 26% and Technical Course - 20%, or between these two (2), they had 46% of the total. It must be noted here that the interviewees recommended Workshop as a most effective means of learning on a short-term basis (cf. Report).

Conclusion: 1. From the record, it is evident that FAD has a strong supportive role to research. The demand for training reveals the need for the development of research capability, both individually and institutionally. This need will persist for a long time yet, as the region is still developing and many more areas will need research.

2. Because the training needs of the different Divisions vary not only in type but also in number, FAD supportive role will vary, too, as it matches its own objectives, programs and budget with those needs. The Findings and the Data, however, seem to indicate continuing, even increasing, the support for short-term training to hasten the development of research capability and increasing the support for degree programs to strengthen research capability.

2. On FAD's Trainor-Trainee Scheme

Both the Findings of the follow-up interviews (cf. Report) and the Data (cf. below, following, as gleaned from the tabulated statistics, attached) show the need for FAD's Trainor-Trainee Scheme with indications for its expansion.

- 2.1 Interviewees unanimously expressed the need for more awards for masteral/doctoral programs, if the region's research capability is to be strengthened and maintained, if research is to have a continuing and multiplying effect. This is not to discount the need for short-term training.
- 2.2 The interviewees spoke of some ways by which the training may be improved, indicating in the process their strong feeling for becoming more effective and useful research workers or researchers, even teachers or trainers (cf. Report).
- 2.3 Trainer Component
 - 2.3.1 Data on FAD-Supported Trainer Institutions, 1982-84 show that FAD supported training activities in thirteen (13) trainer institutions in seven (7) countries in the region. SEAFDEC in the Philippines and National University of Singapore handled the most FAD supported training activities, followed by Universiti Pertanian Malaysia (UPM), IRRI in the Philippines, AIT in Thailand, Kasetsart University in Thailand, Universiti Sains Malaysia (USM), NACA-Regional Lead Centre of China (RLCC), College of Forestry UPLB in the Philippines SEAMEO-INNOTECH in the Philippines, Productivity and Development Centre (PDC) in the Philippines, Roorkee University in India and University of South Pacific in Fiji. Among the Divisions whose interests were served by FAD in these trainer institutions, AFNS had the most, followed by SSD, ISD, HSD, COMM and FAD.

Observation: This seems to indicate the spread of the involvement of FAD in supporting the training activities in trainer institutions in the region, that is, it is not limited to one or two countries, or to one or two institutions. Further, the interests of all the Divisions are receiving support from FAD's training activities in these trainer institutions.

2.3.2 Data on Group Training, Follow-Up of Trainees (1982-84) show what the trainees think of their training, that is, its usefulness. Of the 122 trainees to whom the Follow-Up Questionnaire was sent, 80 replied, or a 66% response, a high percentage in this type of survey. Of the 80 respondents, 39 said the usefulness of their training was satisfactory, or 49% and another 39 said average, or 49%; only two (2) said weak, or 2%, and both were at INNOTECH; in sum, 78 trainees out of 80, or 98%, found some degree of usefulness in their training and only two (2), or 2%, found it weak. A breakdown of the replies according to trainor institutions shows that of the 15 respondents at AIT, nine (9) said satisfactory, six (6) average and none weak, or 60%-40% respectively; of the ten (10) at INNOTECH, two (2) satisfactory, six (6) average and two (2) weak, or 20%-60%-20% respectively; of the 15 at Forestry UPLB, six (6) satisfactory, nine (9) average and none weak, or 40%-60% respectively; of the three (3) at RLCC, two (2) satisfactory, one (1) average and none weak, or 67%-33% respectively; of the ten (10) at USM (Phase II), seven (7) satisfactory, three (3) average and none weak, or 70%-30% respectively; of the nine (9) at USM (Phase I), two (2) satisfactory, seven (7) average and none weak, or 22%-78% respectively; and of the eighteen (18) at Kasetsart University, eleven (11) satisfactory, seven (7) average and none weak, or 61%-39% respectively. In sum, satisfactory ranged from 70% at USM (Phase II) to 20% at INNOTECH, average from 78% at USM (Phase I) to 30% at USM (Phase II), and weak: 20% of the respondents at INNOTECH.

Observation: According to the respondents, Group Training at the trainor institutions mentioned above indicates a measure of success: 39 respondents saying satisfactory, 39 average and only two (2) weak (and this only at INNOTECH), or 78 useful to some degree and two (2) weak. However, the ranged in percentage of satisfactory and of average might indicate a wide difference in effective training.

Conclusion: 1. It is evident from the record that FAD's support of trainor institutions is effecting a reasonable and fair involvement of trainor institutions and countries in the region in serving the interests of the Divisions in training for research or in research itself.

2. There is the further indication of a need to identify other institutions/centres in the region which have adequate research infrastructure and manpower to increase the number of trainor institutions for a wider spread within the region of involvement in training in/for research.

3. Between satisfactory and average, the usefulness of the training rated 98% among the respondents. However, the range, per breakdown of percentage in relation to trainor institution, is wide; further, the differences of rating are too varied. Thus, it might be in order to look into the Group Training courses and methodology. Clearly, since it is only at INNOTECH where the respondents said weak, this, too, bears looking into.

2.4 In-Project Training

2.4.1 Data on Participation in the Project after Completion of Training, 1980-84 show that the four (4) Divisions: AFNS, HSD, ISD and SSD had a total of 59 projects with 249 trainees (individual and recipient-administered), 232 of whom participated in the project after completion of training, or 93%. This is most significant. Among the Divisions, the percentage of participation ranged from a high 95% of HSD (9 projects, 101 trainees, 96 participated) to AFNS's 94% (33, 118, 111) to ISD's 86% (4, 7, 6) and SSD's 83% (13, 23, 19), or a space interval of only 12% between the upper limit of 95% and the lower limit of 83%.

Observation: It is evident that the trainees component (individual and recipient-administered) in the projects is effective in that the home institutions/centres availed themselves of the knowledge and skill of the trainees upon their return to service. This is underlined by the comment of the interviewees that their training is useful.

2.4.2 The same data show the percentage of participation of the sub-divisions in each Division. While SSD had the lowest percentage of participation among the four (4) Divisions: 83%, three (3) of its sub-divisions had a 100% participation: Econ/R Devt (7 trainees, 7 participated), Population (6,6) and Urban (4, 4). But it also had a zero (0%) participation in Educ (3, 3) and a low 67% in S & T (3, 2). Actually, though, in this Division only four (4) trainees out of 23 did not participate, or 19 did. In HSD, which had the highest percentage of participation: 95%, neither of its sub-division registered 100% participation: Health -93% (43 trainees, 40 participated) and Water - 97% (58, 56); in sum, five (5) out of 101 did not participate. However, considering that AFNS had the biggest number of projects and trainees among the Divisions, the percentage of participation of each sub-division is significant: CAPS - 98% (92 trainees, 89 participated), Fisheries - 87% (15, 13), Forestry - 80% (10, 8) and PPS - 100% (1, 1); in sum, seven (7) out of 118 did not participate, or 111 did.

Observation: The data on participation in each sub-division of the four (4) Divisions bring out more clearly the usefulness to the project of the training of the trainees. However, it might be in order to look into why in Education, a sub-division of SSD, not one (1) trainee participated.

Conclusion: 1. The record shows that the availment by the home institutions/centres of the trainees' knowledge and skill gained at the training underscores the effectiveness of the trainee component of the project. This indicates further the continuance of such training, even its enlargement. To repeat, this was underlined by the interviewees.

2. While the percentage of non-participation by the trainees in the projects is still very low, only 7% (participation is 93%: 232 out of 249 trainees participated), still to forestall wastage and to intensify participation (participation, after all, is the very reason for the training), reasons or causes of non-participation be looked into, or ways be found for making trainees commit themselves to participate and for making the home institutions/centres to avail themselves of the trained manpower.

APPENDIX A

LIST OF INTERVIEWEES

(By order of visit: country, city)

1. INDONESIA

Bogor

Mr Dayat Bastiawan (In-P)	Mr Lukas Dharma (FAD)
Balai Penelitian	Balai Penelitian
Perikanan Darat	Perikanan Darat
Tel: 0251/22200	Tel: 0251/22200

NB Upon arrival at the Insitute, I met with the Research Staff for a few minutes. Mr Sudarto and others left for the funeral of the former director, leaving Mr Dayat and Mr Lukas for the interview.

Jakarta

Mr Tri Budiardjo (In-P)	Dr Jeanne Adiwinata (FAD)
World Vision International	Department of Histology
Tel: 327467	Faculty of Medicine
	Universitas Indonesia
	Tel: 883856, channel 53
	from 0900 hrs to 1300 hrs
	350783 from 1400 hrs

and

The Director
Research Center
Universitas Indonesia

2. MALAYSIA

Kuala Lumpur

Mr Hussan B A Kadir
Malaysian Agricultural
Research Development
Institute (MARDI)
Tel: 356601

Mr Daim B Tohiyat (FAD)
Malaysian Fisheries Development
Authority (LKIM)
Tel: 924044

Prof Paul Chen (In-P)
Department of Social and
Preventive Medicine
University of Malaya
Tel: 564422/574422

Dr Fatimah Arshad (FAD)
Faculty of Medicine
Universiti Kebangsaan
Malaysia
Tel: Off 923066 ext 231/273
Res 477063

NB Mr Hamdan bin Sipon (In-P) was out of town, so Mr Hussan, the Head of the Department to which Mr Hamdan is attached, met me in his office, together with two (2) researchers (I failed to get their names). Incidentally, Mr Hussan is leaving in June for doctoral studies in London.

I was not able to interview Dr Yap Teow Cheong of Selangor State Veterinary Department, as we could not find a common time to meet.

3. THAILAND

Chaing Mai

Dr Chaiwat Roongruangsee (In-P)
Department of Sociology
and Anthropology
Faculty of Social Sciences
Chiang Mai University
Tel: 221152/221700/221931

Dr Somsanguan Ausayakhun (FAD)
Department of Ophthalmology
Faculty of Medicine
Chiang Mai University
Tel: 221122 ext 1101, 1910,
1336, 1334

Bangkok

Dr Santasiri Sornmani (In-P)
Dean, Faculty of Tropical
Medicine

and

Dr Viroj Kitikoon
Head, Museum and Reference
Centre
Mahidol University
Tel: 245-7550/245-8251

Mr Vichien Sumantakul
Silvicultural Research
Sub-division
Division of Silviculture
Royal Forest Department
Tel: 579-4730/5790230 to 6
ext 28 (Mr Boonchoop)
ext 29 (Mr Vichien)

NB Mr Boonchoop Boontawee (In-P), the Project Leader, had a meeting at the Ministry but he made arrangements with me to meet Mr Vichien, Assistant Project Leader.

Dr Pramote Prasartkul (In-P)
Director
Institute for Population and Social
Research
Mahidol University
Salaya Campus
Nakornchaisri
Nakornpathom Province
Tel: 413-2931 to 5, ext 36

and

Dr Aphichat Chamrathirong
Deputy Director
Dr Yawarat Porakkham
Ms Rachitta Na Pattalung

NB I was not able to interview Mr Thanom Srisuwan (In-P), who was at his post at World Vision in Chiang Rai, and Dr Damkheong Chandrapanya (In-P), who left for Nonthaburi (?).

4. SRI LANKA

Peradeniya

Dr S D G Jayawardena (In-P) Mr V Sathasivam (FAD)
Division of Botany and Agronomy Department of Agriculture
Central Agricultural Research
Institute
Tel: 26211/26213

Dr M Sikurajapathy (In-P)
Regional Research Station
Maha Illuppallama

and

Mrs P Mallawaarchchi (Trainee)

NB I met twice with Dr Sikurajapathy: at his house in Peradeniya and at the office of Mr Sathasivam, where I also met Mrs Mallawaarchchi.

Colombo

Dr S K Onil Perera
Director General
National Aquatic Resources
Agency (NARA)
Tel: Off 590932
Res 714344

and

Dr S Subasinghe
Mr K P U de Silva
Mrs P S A D Premahilake
Mrs S N Harischandre

NB Prof Gunasena, Peradeniya, made arrangements for me to see Dr Subasinghe, as Mr W M Indrasena (In-P) was at his Research Station in Tricomalee. After my conversation with Dr Subasinghe, he took me to see Dr Perera with whom I had a long talk, together with Mr de Silva, who, in turn, took me to his office to talk to Mrs Premahilake and Mrs Harischandre.

5. INDIA

Tamil Nadu

Mr C Ramanujam (FAD)
Gandhigram Institute of Rural
Health and Family Welfare
Tel: 346 Chinnalapatti

Dr P Shanmugan (FAD)
Gandhigram Institute of Rural
health and Family Welfare

and

Dr G Raman
Director of the Institute

NB Mr Ramanujam and Dr Shanmugan fetched me from the hotel in Madurai and drove me to the Institute. The prepared programme started with a brief call on the Director, followed by visit to the Library, Media Section and Computer Centre. The Director then convened his Research Staff and each briefed me on his/her research and training chore; discussion followed. Besides the Director and the two (2) FAD awardees, the following were present:

Mr K Kaliaperumal	Short-Term Training (HFWTC)
Mr V D Sarangapani	Long-Term Course (DHE)
Ms G Padmavathiamma	Media Section
Ms P Rajeswani	Long-Term Course (AND)
Dr K Ramachandrasastry	Population and Health Projects
Dr C Chacko	ditto
Mr R Rajaretinam	ditto
Mr S Gunasekaran	ditto
Mr V Kandasamy	ditto
Dr S Sivarsju	ditto

When this conference ended at 6.30 pm, we visited the Sanitation Project in Chinnalapatti (IDRC funded) where I met the community leaders. After the usual arrival amenities and talk with the leaders, they took me back to Madurai at 7.00 pm.

The following day, after my conference with the two (2) FAD awardees, they took me to the temple. After lunch, they left me at the airport.

6. PHILIPPINES

Quezon City

Dr Leandro Vilorio (In-P)
Dean, School of Urban and
Regional Planning
University of the Philippines
Tel: 97-16-37

NB I was not able to interview Mrs A B Reyes (In-P), as we
could not find a common time to meet.

Iloilo City

Mr Relicardo M Coloso (In-P)
SEAFDEC
Tel: 7-66-42

APPENDIX B

BACKGROUND DOCUMENTS

1. Training Policy Study, 1981.
2. Internal Audit Report, 1983.
3. Flores Study, 1983.
4. Flores-Tan Status Report, 1984.
5. Revised Logical Framework
6. Data Sheet on In-Project Training,
including Project Abstract (sampling)
7. Follow-Up Questionnaire, In-Project Training
(sampling).
8. Follow-Up Questionnaire, FAD (sampling).
9. IDRC Brochures

AND

Briefing by Dr Pedro V Flores